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(54) Title: **NANOREACTORS AND METHOD OF MAKING**

(57) Abstract: Described herein are nanoreactors having various shapes that can be produced by a simple chemical process. The nanoreactors described herein may have a shell as thin as 0.5 nm and outside diameters that can be controlled by the process of making and have a nanoparticle enclosed therein. The nanoreactors have catalytic activity and may be used to catalyze a variety of chemical reactions.

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